

# FORMAT AND STYLE GUIDELINES FOR IDFG FISHERIES REPORTS



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#### INTRODUCTION

The following guidelines for preparation and publication of fisheries research, management, and hatchery reports have been prepared for authors and clerical personnel. These guidelines will provide a uniform reporting of projects and enhance the quality of those reports.

#### ORGANIZATION OF REPORT

The Idaho Department of Fish and Game urges research, management, and hatchery personnel to prepare reports to conform to standards of correct biological writing and style. The author will use the *Council of Biological Editors Style Manual, North American Journal of Fisheries Management*, and the latest edition of the *Gregg Reference Manual* for style and format.

# Report Divisions

The major divisions and sequence of the report are as follows:

- 1. Cover Page
- 2. Title Page
- 3. Table of Contents
- 4. List of Tables
- 5. List of Figures
- 6. List of Appendices
- 7. Abstract
- 8. Introduction
- 9. Study Site
- 10. Objectives
- 11. Methods
- 12. Results
- 13. Discussion
- 14. Recommendation
- 15. Acknowledgments
- 16. Literature Cited
- 17. Tables
- 18. Figures
- 19. Appendices
- 20. Signature Page

Management and hatchery reports might not follow this sequence exactly. For example, management reports might repeat sections 8 through 14 if they are reporting on two or more drainages or lakes in a section of the report. Management reports may include a general Methods section followed by detailed Methods, Results, Discussion, and Recommendation sections for specific waters. Hatchery personnel might not report on every division depending on what their hatchery did during the year. There is also a separate "Brood Year Report Outline" for anadromous hatcheries to follow when doing their reports.

# **Cover and Title Pages**

The title of your report indicates the subject of your research or project rather than its results. The title will usually be the same as formally established in contract documents. All authors' names must appear in full and be followed by the position title. The date shown is the date of publication. Most research and hatchery reports have photos on the cover; insert the photo (approximately 3" x 5") from an electronic file. Any cooperator's logo is placed in the upper right corner. Cover pages will differ depending on whether they are research, management, or hatchery reports. Contract numbers and project numbers must be accurate to ensure proper submission to the contracting agency.

#### **Table of Contents**

The Table of Contents includes major headings and all subheadings in outline form and the pages on which they begin. The Table of Contents is double spaced between major headings but single-spaced between subheadings. When generating the table of contents in Microsoft® Word, choose the series of periods as the tab leader.

#### List of Tables

The List of Tables follows the Table of Contents. If table headings are formatted as styles, then the List of Tables can be automatically generated in Microsoft® Word.

# **List of Figures**

The List of Figures is formatted as the List of Tables. Again, if figure headings are formatted as styles, then the List of Figures can also be automatically generated in Microsoft<sup>®</sup> Word.

#### **Abstract**

The Abstract is a summary of the results, interpretation, and conclusions of your research or project and is to be complete in itself without reference to the text or to the literature. The Abstract begins on a separate page and is page 1. The author's name and title follow the Abstract at the bottom of the page. Words defined in the Abstract must be defined again in the text.

# Introduction

The Introduction begins on a new page and briefly establishes the general objectives and significance of your study. State your hypotheses or clearly define the problems your research was designed to study. Explain the reasons for the research and point out the timeliness and scope of the study. The Introduction is not the place to convince the reader your study is important.

The Introduction should be long enough to thoroughly acquaint the reader with the nature and extent of your study, but not so long that it rewrites the entire history of your topic. Acquaint the

reader with previous research conducted on the subject of your report, but avoid a lengthy review of the literature. Review only those publications that are most relevant to your study and that are necessary to familiarize the reader with the discussion that follows. A comprehensive literature study may be deferred to the Discussion section if appropriate.

Any misleading conclusions or errors you discover in the literature review that affect your study should be discussed in detail. All quoted materials must be accurately transcribed and cited. Whether you paraphrase material or quote an author directly, literary ethics require that you give credit to the source of the information.

# **Study Site**

You may include a detailed description of your study site, but limit your discussion to that information needed to understand and interpret your results. Maps can be useful in some cases, especially "staged" maps, which sequentially take the reader from a very general location to a small localized area.

# **Objectives**

Objectives are specific and written clearly and concisely. One sentence usually is sufficient to describe an objective. Objective statements will usually start with the word "to," followed by an action verb. Management report objectives are taken from federal contracts.

#### Methods

The procedures you used to gather information are clearly explained. Be brief, but include enough detail so that another researcher could duplicate your experiment. This means describing your methods, equipment and instruments used, and exact procedures. For example, tell how you assessed population abundance—explain the specifics of your techniques. It is often helpful to display complex or detailed equipment in a figure. If your procedures have been well documented elsewhere or are commonly used in research, it is usually sufficient to cite a few relevant and current sources in the literature. Include any comments you feel are necessary for clarification if your methods deviate from published procedures or if your techniques are new or unique. The Methods section should focus on the subject matter of your research and be followed logically in the Results.

# Results

This section includes only the results obtained from your research. Include only the data pertinent to your research and report the most important results first. (Tabular material too lengthy for the text can be included in the Appendices.) Present your results in a logical, sequential order to accept or reject your hypothesis. Do not use exhaustive prose to explain something that can be presented clearly and simply in a table or figure; an imaginative figure and a few supportive statements are usually easier to construct and to understand. Present the data that validate methods used in the study in the Methods section, not in the Results section, if the validation was an incidental product of the study rather than its major object.

Although long lists of raw data are undesirable, basic data should not be refined to the degree that a reader can neither verify the analysis nor use the information for other purposes. Statistical testing is an important part of some analysis but should not obscure biological insight. Although most scientific decisions are based on statistical probability of error of 5% or less, there are no requirements regarding significance levels.

# **Discussion**

The Discussion section can be the most important part of your report. The strongest discussions are true essays that materially advance the science of fishery management. Use this section to interpret and comment on your data; i.e., what does it all mean? Discuss the most important aspects first. Point out any relationships between your findings and those of other authors. If other research results disagree with yours, discuss the differences and possible reasons. Point out the significant aspects of your findings and any logical implications for future research.

Your discussion should synthesize previous work with your research to help support basic principles in your respective field. Be concise in your presentation; beware of redundancy, excessive wordiness, and unsubstantiated speculation.

# Recommendations

List recommendations for fishery management actions or approaches that are indicated by your work. Do not use Recommendations as a self-serving justification for further research. Recommendations may be covered in the Discussion section but should be listed separately for ease of use.

# Acknowledgements

The Acknowledgements section begins on a new page. It should identify those persons and agencies who helped you directly in research or report preparation.

#### **Literature Cited**

The Literature Cited section begins on a new page.

#### Tables

The author can choose to insert all the tables together at the end of the report before the appendices rather than throughout the text after first being mentioned. If so, start the tables on a new page after the last page of text.

# **Figures**

Figures can also be inserted all together at the end of the report before the appendices rather than throughout the text after first being mentioned. Again, if this is done start the figures on a new page.

# **Appendices**

Anything that is not absolutely necessary to the text, but that will make your study more understandable, can be included in the Appendices Section. Such materials include long, detailed tables, questionnaires, maps, graphs, charts, data collection forms, raw data, and data too lengthy for footnotes.

The heading APPENDICES should be typed in caps, centered, on a separate page preceding the Appendices contents. Begin the first appendix on a new page, and number all tables and pages continuously throughout the Appendices section. Use the same margins in Appendices as in the text. Appendix captions should be typed at the top of the page and designated Appendix A, Appendix B, etc.

# Signature Page

The last page of the report is the Signature Page. All authors' names are listed along with a space for the signature of the research manager and the bureau chief.

#### REPORT PREPARATION

# **Format**

Combine all sections of the document into one file. All pages, figures, tables, and appendices are numbered consecutively throughout the document.

Edit your manuscript carefully before giving the entire report to the Office Specialist for final formatting. Check for accuracy and consistency of style and format. The final responsibility for proofreading is YOURS!

# Page Setup

Standard paper size is 8.5" x 11" with 1" margins on all sides.

Use tabs and centering instead of spacing for indents. Insert page breaks, not section breaks, at the end of pages that are shorter than the entire page length. Use section breaks only if the next section will be formatted differently than the current one.

Double-space draft reports; single-space final reports. Indent the first line in each paragraph ½".

# **Page Numbers**

Insert page numbers on the bottom of each page in the center. In Microsoft® Word, click on View, then choose Headers and Footers. Type the page number in the footer and center it. Use the Format Page Number button on the toolbar to choose the type of number (i, ii or 1, 2, etc.) and whether the numbering continues from the preceding section.

The cover page and title page are not numbered. Preliminary pages are numbered with small Roman numerals, beginning with the Table of Contents page as i. Text is numbered with Arabic numerals, beginning with the Abstract as page 1.

# Type Size

Use Arial 11 throughout the document. A smaller point size can be used in tables to fit them onto one page, but no smaller than Arial size 8.

# **Headings and Subheadings**

Up to four levels of headings may be used in the text:

- Heading 1 is all capitals, centered, bold, not underlined, with three blank lines before and after.
- Heading 2 is initial capitals, centered, bold, underlined, with three blank lines before and after. (If Heading 2 immediately follows Heading 1, reduce the blank lines in between the two to four rather than six.)
- Heading 3 is initial capitals, flush left, bold, not underlined, with three blank lines before and after.
- Heading 4 is initial capitals, indented ½", bold, underlined, with a dash after the heading and before the paragraph. It is part of the paragraph, and if used with Microsoft<sup>®</sup> Word's automatic table of contents feature will have to be inserted with the Mark Table of Contents Entry feature.

Heading styles can be set up in Word to prevent them from having the heading at the bottom of the page without any text following. Format the paragraph for Widow/Orphan Control and Keep With Next.

Subheadings may begin immediately after preceding material but must have sufficient room to include at least two lines of text at the bottom of the page.

Examples:

**HEADING 1 EXAMPLE** 

Heading 2 Example

**Heading 3 Example** 

Heading 4 Example—with text following

# Tables, Figures, Graphs

The type of information to be conveyed will often determine the medium to be used. Properly constructed graphs, like tables, are the best way to present statistical comparisons of data sets, but graphs are especially effective for illustrating trends and the relation between variables in experimental data. Tables, on the other hand, are preferred when precise numerical information is required. Drawings may be used to emphasize, subtract, and combine selected details of the subject.

All illustrations, graphs, photographs, charts, maps, and diagrams are considered figures and should be labeled as such. They need to fit on 8½" by 11" paper with the proper 1" margin. All figures must be in an electronic file and inserted into the main document.

Graphs and line drawings should be done in Microsoft<sup>®</sup> Excel and inserted into the Microsoft<sup>®</sup> Word document. The title information should be in a legend. Axis labels, data points, etc., should be formatted in Microsoft<sup>®</sup> Excel.

Diagrams are often useful to illustrate a procedure, the structure of an apparatus, or details that would not be clear in a photograph. Keep all diagrams simple and clearly labeled.

Figures are usually placed on the page following first mention in the text, although they can be grouped together before the appendices. Figure captions appear below the figure and need to be separated from the figure itself when pasted into the document. Incorporate most of the explanatory material in the caption. Each figure must be self-explanatory and descriptive enough to stand alone without reference to the text.

Tables should be centered on the page. They are usually placed on the page following first mention in the text, but they can also be inserted at the end of the text before the appendices. Short tables may appear on a page with the text, but do not start a table on a text page unless there is room to complete it on the same page.

Long tables should be on separate pages, preferably with the complete table on one page. If it is necessary to continue a table on subsequent pages, repeat "Table #. Continued." at the top of each page and the column headings. Lengthy tables should be avoided in the text in favor of the Appendix. Type size can be reduced in order to fit a table on one page, but no smaller than Arial 8.

Ideally, tables should appear vertically on the page unless the quantity of data requires that the table be placed horizontally. Table titles should be brief an clear, yet show the source of the data, the date collected, and units of measurement.

Be consistent when capitalizing column headings. Use single spacing throughout the table. Insert a line at the top and bottom of the table and underneath each column heading. Do not insert interior grid lines.

Tables are numbered in order of their citation throughout the entire text. The title describes the topic or the general trends in the table. The species of experimental organisms and a brief description of the experimental conditions can often be put in the title instead of in the headings or footnotes. The title should be succinct, but not so terse that it is uninformative. The terms

used in the title should correlate with the column headings, but the title should not consist solely of a list of the column headings if a general descriptive term can be used.

The units of measure for the data in the field are usually put with the box headings, not repeated in the columns. Units can be supplied in footnotes to headings if the words are large and space is limited.

Data columns should not contain blank spaces. If no measurements were taken or no data is available, use a dash (—) or ND for "no data." Use zero (0) only to signify success. When decimal fractions occur in the data field, always use a zero to the left of the decimal point (0.#). Never use 0.0.

If the word "Total" is used in a subheading, consider inserting a blank line between the previous row and the total row.

Use standard abbreviations in the column headings only when space does not allow headings to be spelled out. Any abbreviations or symbols that are not standard units of measure, or are not readily recognizable, are explained in the table caption or footnotes.

Table footnotes use lowercase superscript letters (not numbers), alphabetically, immediately below the table, indented three spaces from the left margin. Text size is Arial 10 unless the table itself is less than Arial 11, in which case the footnote text size is the same as the table text. Footnote references are labeled left to right, top to bottom, in the table. Use asterisks for probability levels.

The most important part of a table is the data field. Years of important information can be summarized in a few short columns. Do not overlook the importance of accuracy in tables. Double check your original data with the data in the table.

# Example of a table:

Table 1. Infection rates of *M. cerebralis* for rainbow trout (Rb) and cutthroat trout (Ct) exposed in the Spokane River drainage, Idaho from July 8-17, 1998.

		Exposure	Temp. (°C)		Histolo	gical R	anking	
Drainage	Species	Mean	Range	0	1	2	3	4
N Fk. Coeur d'Alene <sup>a</sup>	Rb Ct	17 47	13-21 13-21	20 ND°	0 ND	0 ND	0 ND	0 ND
St. Joe River <sup>b</sup>	Rb Ct	ND <sup>d</sup> ND	ND ND	21 20	0 0	0 0	0 0	0 0
Marble Creek	Rb	16	12-21	20	0	0	0	0

<sup>&</sup>lt;sup>a</sup> N Fk. Coeur d'Alene River at Pritchard Creek.

<sup>&</sup>lt;sup>b</sup> St. Joe River near Midget Creek.

<sup>&</sup>lt;sup>c</sup> No data. Test group contracted lchthyophthirius resulting in 100% mortality.

<sup>&</sup>lt;sup>d</sup> No data. Temperature recorder malfunction.

# Citations in the Text

Any material taken from the works of other authors must be given proper credit in the text and literature citations. Avoid referencing common knowledge, particularly conventional tests of probability.

Literature citations in the text take one of two forms, each with different punctuation, depending on the way they are used in the sentence (*North American Journal of Fisheries Management* style):

In theory, LAN is found mainly in the lysosomes (DeDuve 1959; Kaulen et al. 1970), but McCabe and Cayen (1965), Kaulen et al. (1970), and Smith (1971) reported both bound and dissolved forms of LAN.

Cite both last names of two authors, but use the first author plus "et al." for three or more authors.

Citations are listed chronologically in a text sentence, e.g., (Terr 1972, 1976; Applegate et al. 1974; Hall and Jones 1975).

Institutional authors may be referenced by acronyms in the text, but must be defined in the list of literature citations. For example, "NOAA (1962)" in the text would appear as "NOAA (National Oceanic and Atmospheric Administration). 1962." in the Literature Cited section.

If you are citing a direction quotation, specific figure, or table, accurate page numbers must be given:

According to Griffin (1974:229), "this is not universally true." Griffin's data (1974:Table 6) support his conclusions.

Give page numbers when paraphrasing from lengthy publications or books: (van de Berg 1973:214-217)

If the same author(s) has more than one citation in the same year, the year is referenced with lower case letters:

```
Smith and Jones (1972a, 1974)
(Smith and Jones, 1972a, 1972b, 1973; Anderson 1974)
```

Sources of information not in the open letter, such as personal letters or unpublished research results, are cited in the text, not in the Literature Cited section.

```
(G. Taylor, U.S. Fish and Wildlife Service, personal communication)
Johnson et al. (University of Idaho, unpublished data)
(Gates 1973; Anderson et al. 1974; G. Taylor, U.S. Fish and Wildlife Service, personal communication)
```

A citation of an unknown author may be referenced "Anonymous" in both the text and literature citations:

```
(Anonymous 1978)
```

The need to cite references not readily available, or no longer in existence, presents a problem to some biologists, particularly taxonomists. If you must cite such a reference, indicate in some way, possibly in a footnote or a notation in parentheses, that you have not read the reference in

the original. The citation "Powell (1858, cited by Forbes, 1872)" would indicate that you have depended upon an article written by Forbes and published in 1872 for information originally in an article written by Powell and published in 1858. You should include both articles in your list of references and add the information from Powell in parentheses at the end of the Forbes entry (1872). Similar candor is desirable in citing articles published in foreign languages. Indicate either in the text or in the list of bibliographic references whether you are citing the original article, a translation, or an abstract.

It is your responsibility to double check authors names and publication dates with those in the literature citations. Inconsistencies between these items are prevalent in research papers and are often overlooked in the proofreading stage. If you fail to supply your readers with accurate reference information, your credibility is reduced.

# Citations on the Literature Cited Page

Only those references cited in the text may be included in the Literature Cited Section, including all sources quoted directly or indirectly. References to unpublished documents held in a library or archival collection accessible to the public may be listed in this section. Other unpublished materials that are inaccessible, such as letters, unpublished data, preliminary drafts, or reports, are identified within the text. Take the utmost care to cite all literature referred to in the report.

Accuracy is paramount. When possible, personally examine original sources rather than secondary sources. Do not cite sources you have not personally examined. Citations must contain all the information necessary for the reader to locate the source.

Follow the *North American Journal of Fisheries Management* style, which requires spelling out all bibliographic information, including the names of journals; i.e., North American Journal of Fisheries Management, <u>not</u> N.Am. Journ. Fish. Mgmt. Use only the following abbreviations:

- First and middle initials of authors
- Abbreviations in original titles of articles and books
- Numbers (2<sup>nd</sup> edition, 11<sup>th</sup> Congress) other than those spelled out in tables
- USA, USSR

Repeat authors' names completely rather than using a horizontal line if they have more than one reference in your citations section.

# Grammar, Word Usage, Style

Use the latest edition (9<sup>th</sup> Edition, 2001) of the *Gregg Reference Manual* for grammar, usage, and style guidelines. Unique rules for IDFG are detailed in the following:

# **Footnotes**

Avoid using footnotes whenever possible. Inserting this material directly in the text makes reading easier. Consider whether the footnoted material is even necessary.

#### Wordiness

Excess verbiage can be as distracting as bad grammar. Using unnecessary words and phrases is a common fault of writers. The following are examples frequently found in scientific writing:

WordyBetterAt the present timenowDue to the fact thatbecauseIn order totoSubsequent toafterPrior tobeforeLarge numbers ofmany

During the summer of 1976 in summer 1976

At the conclusion of after In the event that if

A total of *x*# just use the number

#### Misused words

Many words are used improperly because they resemble other words with similar meanings. Some words have been used improperly for so long, their misuse has become commonplace in writing. Examples:

That introduces a restrictive clause
Which introduces a nonrestrictive clause

Since implies some time past until the present; not a synonym for because or due to While used to express time relationships; not a synonym for although or whereas

Affect verb that means to cause a change

Effect noun that implies the result of an action or a verb meaning to bring about or

cause

Among compares more than two things Between compares only two things

Continual implies something going on in time with no or brief interruption

Continuous goes on in time or space without interruption

Enable makes something able or possible

Permit allows or gives consent

Insure protect against loss Ensure to make certain

Assure to give someone confidence

Farther restricted to physical distance

Further usually safe to use for everything else

Less sum, total, quantity or period of time

Fewer numbers

Greater larger in spatial dimension or size, larger in number, or more numerous

Higher implies elevation above a foundation or continuing a relatively greater amount

Larger reflects something more ample in quantity

For example designated e.g. That is noted as i.e.

Incidence implies the number of cases developing per unit of population per unit of time

Prevalence implies cases existing in a population at a given time

Various different kinds

Varying changing or causing change

Percent noun, adjective, or adverb; takes the percent symbol with numerals (98%)
Percentage a noun; part of a whole expressed in hundredths, as in "percentage of cells"

#### **Numbers**

Use the 24-hour time system, which is indicated by four digits. The day begins at 0000 (midnight) and ends at 2359 (the last minute in the day).

Dates are written as month day, then year, not as day month. Write out dates, except in tables. In a date series, use 1991-1995 with no spaces before or after the hyphen, or use 1991 to 1995.

Do not use 4-10C. Use 4°C-10°C instead

Use the metric system unless the English system is more suitable for the subject or for the intended audience. Do not report in one system with the other system following in parentheses.

#### **Scientific Names**

Use the latest edition of *Common and Scientific Names of Fishes from the United States and Canada* (5<sup>th</sup> edition, 1991) for taxonomic and common names of North American fishes. Common names may be used freely in the report, but they should be accompanied by their scientific names in the title and when first mentioned in the Abstract and text. Always use full common names ("rainbow trout" or "brook trout"), not an abbreviated version ("trout" or "rainbow").

Abbreviate generic names, e.g., *O. mykiss*, when they are repeated within two or three paragraphs in the text. Do not use abbreviations when they can be confused with other generic names, e.g., *Salvo* and *Salvelinus*. Italicize scientific names of genera, species, subspecies, and varieties; do not underline. Generic names used as common names are not italicized.

# **Abbreviations and Symbols**

Do not use abbreviations or acronyms excessively. Unless it will be used repeatedly, spell out the word or phrase.

Spell out state names in the text and in the Literature Cited section.

Do not begin a sentence with an acronym. Insert the word "the" first, spell out the word, or rewrite the sentence.

Spell out "Fish Hatchery" and "National Fish Hatchery" rather than abbreviating them as "FH" or "NFH."

The following abbreviations and symbols can be used without definition. Any others must be defined in the text at first mention, in the captions or footnotes of tables, or in figures or figure captions. Use spelled-out words to start sentences.

Weights and measures		Weights and measures	
(metric)		(English)	
centimeter (0.39 in)	cm	calorie	cal
degrees Celsius	°C	cubic feet per second	ft³/s
gram (0.03 oz)	g	degrees Fahrenheit	۰F
kilogram (2.2 lb)	kg	feet (30.48 cm)	ft
kilometer (0.62 mi)	km	gallon (3.78 liters)	gal
liter (0.26 gal)	L	inch (25.4 mm)	in
micro (10 <sup>6</sup> )	μ	mile (1.61 km)	mi
meter (39.37 in)	m	ounce (28.35 g)	oz
millimeter (0.039 in)	mm	parts per million (mg/liter)	ppm
milligram	mg	pound (453.6 g)	lb
parts per million	mg/L	ton (907.18 kg)	ton
tonne (2,204 lbs	t	yard (91.4 cm)	yd
milliliter (.338 fluid oz)	ml	acre (.405 hectares)	acre
hectare (2.47 acres)	ha		

# Time

Day d Hour h Minute min Second s

#### Mathematics and statistics

All standard mathematical signs, symbols, and abbreviations, plus the following:

base of natural logarithm е coefficient of linear correlation r degrees of freedom df exponential exp logarithm log not significant NS percent % probability Р sample size Ν relative weight Wr standard deviation SD standard error SE

Specify the base for each logarithm: log10X; log<sub>c</sub>Y.

Commonplace statistical tests (Student's t, F, chi-square, etc.) require no definition or reference

# Restricted use (as indicated in parentheses)

Compass direction (in maps and coordinates)

East E
North N
South S
West W
Et alii (author citations) et al.

#### Months (in tables, figures)

January Jan February Feb March Mar April Apr May Mav June Jun July Jul August Aug September Sep October Oct November Nov December Dec

Use the abbreviations in the text only with numerals, e.g., 10 mg, 27 m. Spell out measurements if they are not preceded by numerals and if a measurement is at the beginning of a sentence (Seven milligrams). When an abbreviation is used in a sentence, the verb should agree with the quantity measured (6 cm were, 1 cm was). The same abbreviation is used for both singular and plural forms (1 mm, 17 mm).

The North American Journal of Fisheries Management guidelines should be used in cases of discrepancies. When you introduce an unconventional or unfamiliar abbreviation in the text, define it the first time it is used. Always define these abbreviations in tables and figures.

# **Equations and Formulas**

Insert one space on each side of symbols used as conjunctions (P = 0.05), but leave no space when used as adjectives (>12).

Center equations in the text between the left and right margins. Each equation should be numbered sequentially in parentheses near the right margin:

$$y + qy = b(x); yo - y(xo).$$
 (4)

SAMPLES OF COVER PAGES, TITLE PAGES, AND SIGNATURE PAGE



# (Sample of the cover page for a BPA Progress Report)



# TITLE LINE 1 TITLE LINE 2

ANNUAL PROGRESS REPORT Month, day, year – month, day, year

Insert picture?

Prepared by:

Name, position

and

Name, position

# (Sample of the cover page for a DJ report)





# **PROJECT TITLE**

**Grant #** 

**Report Period Month Year to Month Year** 

Author 1 Position

# (Sample of the cover page for an LSRCP report)





# TITLE TITLE CONTINUED TITLE CONTINUED

**Project Progress Report** 

**Report Period Month Year to Month Year** 

Insert picture?

Name Position

Name Position

# (Sample of the title page for BPA reports)

# **Title**

# **Project Progress Report**

**Year Annual Report** 

Ву

Author Author Author Author

Idaho Department of Fish and Game 600 South Walnut Street P.O. Box 25 Boise, ID 83707

То

U.S. Department of Energy Bonneville Power Administration Division of Fish and Wildlife P.O. Box 3621 Portland, OR 97283-3621

Project Number ##
Contract Number ##

# (Sample of the title page for DJ reports)

# **Annual Performance Report**

Month, Day, Year to Month, Day, Year

**Grant#** 

Project Subproject Subproject Subproject

Ву

Name

Idaho Department of Fish and Game 600 South Walnut Street P.O. Box 25 Boise, ID 83707

# (Sample of the title page for LSRCP steelhead reports)

# LSRCP Hatchery Evaluation Studies in Idaho Part 1: Steelhead Trout

**Year Annual Report** 

Ву

Author Author

Idaho Department of Fish and Game 600 South Walnut Street P.O. Box 25 Boise, ID 83707

To

U.S. Fish and Wildlife Service Lower Snake River Compensation Plan Office 1387 S. Vinnell Way, Suite 343 Boise, ID 83709

Cooperative Agreement 14-48-0001-xxxxx

# (Sample of the title page for LSRCP chinook salmon reports)

# LSRCP Hatchery Evaluation Studies in Idaho Part 2: Chinook Salmon

# **Year Annual Report**

Ву

Author Author Author Author

Idaho Department of Fish and Game 600 South Walnut Street P.O. Box 25 Boise, ID 83707

To

U.S. Fish and Wildlife Service Lower Snake River Compensation Plan Office 1387 S. Vinnell Way, Suite 343 Boise, ID 83709

Cooperative Agreement 14-48-0001-xxxxx

# (Sample of the signature page for all reports)

Prepared by:	Approved by:	
	IDAHO DEPARTMENT OF FISH AND GAME	
Name	Virgil K. Moore, Chief	
Title	Bureau of Fisheries	
Name	Steve Yundt	
Title	Fishery Research Manager	

# (Sample of DJ Report section heading with no subprojects)

# **ANNUAL PERFORMANCE REPORT**

State of:

<u>ldaho</u>

Grant No.: <u>F-73-R-21</u>, Fishery Research

Project No.: Enter # here

Title:

Type Title Here

Contract Period: Type contract period here

# **ABSTRACT**

Type abstract here

Authors:

Name

Title

Name

Title

# (Sample of DJ Report section heading with multiple subprojects)

# ANNUAL PERFORMANCE REPORT SUBPROJECT #1: TYPE SUBPROJECT TITLE HERE

State of:	<u>Idaho</u>	Grant No.:	F-73-R-21, Fishery Research
Project No.:	Enter # here	Title:	Type Title Here
Subproject #	1: <u>Type subproject name here</u>		
Contract Per	iod: Type contract period here		
	A	BSTRACT	
Type abstrac	t here		
Authors:			
Name			
Title			
Name			

Title

COMMON AND SCIENTIFIC NAMES OF IDAHO FISHES
Listed by scientific name and common name for easier searching; capitalized only if required.

Acipenser transmontanus	- white sturgeon
Acrocheilus alutaceus	- white stargeon - chiselmouth
Alosa sapidissima	- American shad
Ameiurus melas	- American shad - black bullbead
Ameiurus meias	
Ameiurus nebulosus	brown bullhood
American shad	
Arctic grayling	
Atlantic salmon	- Trigitialius arcticus
Bear Lake cutthroat trout	- Oncomynchus ciarki ulari
Bear Lake sculpin	
Bear Lake whitefish	
black bullhead	
black crappie	
blue catfish	
blueback trout	
bluegill	- Lepomis macrocnirus
bluehead sucker	
Bonneville cisco	
Bonneville cutthroat trout	
Bonneville whitefish	
bridgelip sucker	
brook trout	
brown bullhead	
brown trout	
bull trout	
burbot	
Carassius auratus	- goldfish
Catostomus ardens	
Catostomus catostomus	
Catostomus columbianus	- bridgelip sucker
Catostomus discobolus	
Catostomus macrocheilus	- largescale sucker
Catostomus platyrhynchus	- mountain sucker
channel catfish	- Ictalurus punctatus
chinook salmon	- Oncorhynchus tshawytscha
chiselmouth	- Acrocheilus alutaceus
Cichlasoma nigrofasciatum	- convict cichlid
coho salmon	- Oncorhynchus kisutch
common carp	- Cyprinus carpio
convict cichlid	- Cichlasoma nigrofasciatum
Coregonus clupeaformis	- lake whitefish
Cottus bairdi	- mottled sculpin
Cottus beldingi	- Paiute sculpin
Cottus cognatus	- slimy sculpin
Cottus confusus	- shorthead sculpin
Cottus extensus	- Bear Lake sculpin
Cottus greenei	
<b>U</b>	

COMMON AND SCIENTIFIC NAMES OF IDAHO FISHES
Listed by scientific name and common name for easier searching; capitalized only if required

	NATIONAL POLICE
Cottus leiopomus	Wood River sculpin
Cottus rhotheus	torrent sculpin
Couesius plumbeus	lake chub
Ctenopharyngodon idella	grass carp
cutthroat trout	Oncorhynchus clarki
Cyprinus carpio	common carp
Esox lucius x E. masquinongy	tiger muskie
Esox lucius	northern pike
fathead minnow	Pimephales promelas
fine-spotted cutthroat trout	Oncorhynchus clarki bouvieri
flathead catfish	Pylodictis olivaris
Gambusia affinis	western mosquitofish
Gila atraria	
Gila bicolor	
Gila copei	leatherside chub
golden trout	Oncorhynchus aguabonita
goldfish	Carassius auratus
grass carp	Ctenopharyngodon idella
green sunfish	Lepomis cyanellus
green swordtail	Xiphophorus helleri
guppy	Poecilia reticulata
Ictalurus furcatus	blue catfish
Ictalurus punctatus	channel catfish
kokanee	Oncorhynchus nerka kennerlyi
Lahontan cutthroat trout	Oncorhynchus clarki henshawi
lake chub	Couesius plumbeus
lake trout	Salvelinus namaycush
lake whitefish	
Lampetra tridentata	Pacific lamprey
largemouth bass	Micropterus salmoides
largescale sucker	Catostomus macrocheilus
leatherside chub	Gila copei
leopard dace	Rhinichthys falcatus
Lepomis cyanellus	green sunfish
Lepomis gibbosus	pumpkinseed
Lepomis gulosus	warmouth
Lepomis macrochirus	bluegill
longnose dace	Rhinichthys cataractae
longnose sucker	Catostomus catostomus
Lota lota	burbot
Micropterus dolomieu	smallmouth bass
Micronterus salmoides	largemouth bass
Misgurnus anguillicaudatus	oriental weatherfish
mottled sculpin	Cottus bairdi
mountain sucker	Catostomus platvrhynchus
mountain whitefish	Prosopium williamsoni
Mozambique tilapia	Tilapia mossambica
Mylocheilus caurinus	peamouth
northern pike	Fsox lucius
northern squawfish	Ptychocheilus oregonensis
Notropis hudsonius	spottail shiner
พงแบบเจ แนนจับแนจ	apatter a.m.a.

COMMON AND SCIENTIFIC NAMES OF IDAHO FISHES
Listed by scientific name and common name for easier searching; capitalized only if required

At A	1 - 1 - 1
Noturus gyrinus	
Oncorhynchus aguabonita	
Oncorhynchus clarki bouvieri	
Oncorhynchus clarki henshawi	Lanontan cutthroat trout
Oncorhynchus clarki lewisi	
Oncorhynchus clarki utah	
Oncorhynchus clarki bouvieri	
Oncorhynchus clarki utah	
Oncorhynchus clarki	
Oncorhynchus kisutch	
Oncorhynchus mykiss gairdneri	redband trout
Oncorhynchus mykiss gairdneri	- steelhead
Oncorhynchus mykiss	rainbow trout
Oncorhynchus nerka kennerlyi	· kokanee
Oncorhynchus nerka	sockeye salmon
Oncorhynchus tshawytscha	
oriental weatherfish	
Pacific lamprey	- Lampetra tridentata
Paiute sculpin	Cottus beldingi
peamouth	Mylocheilus caurinus
Perca flavescens	yellow perch
Percopsis transmontana	sand roller
Pimephales promelas	fathead minnow
platy fish	Xiphophorus ssp.
Poecilia reticulata	guppy
Pomoxis annularis	
Pomoxis nigromaculatus	
Prosopium abyssicola	Bear Lake whitefish
Prosopium coulteri	pygmy whitefish
Prosopium gemmifer	· Bonneville cisco
Prosopium spilonotus	Bonneville whitefish
Prosopium williamsoni	mountain whitefish
Ptychocheilus oregonensis	northern squawfish
pumpkinseed	Lepomis aibbosus
pygmy whitefish	Prosopium coulteri
Pylodictis olivaris	· flathead catfish
rainbow trout	Oncorhynchus mykiss
redband trout	
redbelly tilapia	
redside shiner	
Rhinichthys cataractae	
Rhinichthys falcatus	leonard dace
Rhinichthys osculus	
Richardsonius balteatus	redside shiner
Salmo salar	Atlantic salmon
Salmo trutta	
Salmo trutta	
Salvelinus aipinus oquassaSalvelinus confluentus	bull trout
Salvelinus confidentus	
Salvelinus namaycush	Porconsia transmentens
sand roller	- гетсорыя паныпоптана

# COMMON AND SCIENTIFIC NAMES OF IDAHO FISHES

Listed by scientific name and common name for easier searching; capitalized only if required

•	
sauger	Stizostedion canadense
shorthead sculpin	Cottus confusus
Shoshone sculpin	Cottus greenei
slimy sculpin	Cottus cognatus
smallmouth bass	Micropterus dolomieu
sockeve salmon	Oncorhynchus nerka
speckled dace	Rhinichthys osculus
spottail shiner	Notropis hudsonius
steelhead	Oncorhynchus mykiss gairdneri
Stizostedion canadense	sauger
Stizostedion vitreum	walleye
tadpole madtom	Noturus gyrinus
tench	Tinca tinca
Thymallus arcticus	Arctic grayling
tiger muskie	Esox lucius x E. masquinongy
Tilapia mossambica	Mozambique tilapia
Tilapia zilli	redbelly tilapia
Tinca tinca	tench
torrent sculpin	Cottus rhotheus
tui chub	Gila bicolor
Utah chub	Gila atraria
Utah sucker	Catostomus ardens
walleye	Stizostedion vitreum
warmouth	Lepomis gulosus
western mosquitofish	Gambusia affinis
westslope cutthroat trout	Oncorhynchus clarki lewisi
white crannie	Pomoxis annularıs
white sturgeon	Acipenser transmontanus
Wood River sculpin	Cottus leiopomus
Xiphophorus helleri	green swordtail
Xiphophorus ssp	Platy fish
yellow bullhead	Ameiurus natalis
yellow perch	Perca flavescens
Yellowstone cutthroat trout	Oncorhynchus clarki bouvieri
1 CHOMOLOTIC CALLINGAL WOLL	•

# FISH DISEASES AND ABBREVIATIONS

Aeromonas salmonicida	BF and FUR
Arthrospira	
Bacterial Coldwater Disease	
Bacterial Furunculosis	
Bacterial Gill Disease	
Bacterial Kidney Disease	
Bacterial Septicemia	
Ceratomyxa shasta	CSH or PC
Cestodiasis	CESTO
Coagulative Yolk Disease	
Cold Water Disease	CWD
Columnaris – Pseudomonas Spp	
Costiasis	COS
Cytophaga psychrophila	
Diagnostic Report	
Enteric Red Mouth	
Enteric Redmouth Bacterium	
Environmental Gill Disease	
Environmental Toxicosis	
Enzyme-Linked Immunosorbent Assay	
Epistylus	-EDI
Epizootic Epitheliotropic Disease	
Erythrocytic Inclusion Body Syndrome-	
Flavobacterium psychrophilum	
Flexibacter columnaris	
Fluorescent Antibody Test	
Furunculosis	_FHR
Gas Bubble Disease	
Gyrodactylus	
Hexamita	-HEXA
ICH infestation	
Ichthyobodo	
Ichthyophthirius multifilis	-ICH
IHNV or IHN	-\/H
Infectious Hematopoietic Necrosis	
Infectious Pancreatic Necrosis	
Inspection Report	
IPNV or IPN	-\/P
Motile Aeromonas Septicemia	
Myxobolus cerebralis	-WHD
Nonsignificant Growth	
Nutritional Gill Disease	
PKX, agent of PKD	
Proliferative Kidney Disease	
Renibacterium salmoninarum	
Sanguinicola	<del>-</del>
Saprolegnia	-SAP
Too numerous to count	
Trichodina	

# FISH DISEASES AND ABBREVIATIONS

Viral Erthrocytic Necrosis (PEN)	VEN
Whirling Disease	WHD
White Sturgeon Iridovirus Disease	WSID
White Sturgeon Iridovirus	WSIV
Wild Fish Report	WF
Yersinia ruckeri	BR or ERM

(Not in Microsoft® Word's basic dictionary)

μ (Micro—10<sup>6</sup>) ardens biostatistical abyssicola areal BKD Achord Arent bluegill acina Argentyne boat-mounted Acipenser Argonne Bocek

Boisselle Arrowrock acre (.405 hectares) Bolich artemia Acrocheilus Bonifer A-run actibath Bonneville Ashton adfluvial bouvieri adipose-clipped Astorquia **BPA** asymptote ADM bridgelip atraria aeromonas Bridgewater auratus **AFS** Bromage autopilot afterbay broodstock Bacchus age-1

broodstocks back-calculated age-1+ B-run back-calculating age-2 burntlog backwater age-3 bypassed bacteremia age-specific cal (calorie) bairdi aggrading calloused aguabonita Ballentyne

canadense balteatus Ahsahka carpio barbless Albeni cataractae Bargamin algal baseline catchability alimentary intoxication catchable basinwide All Topo Maps (not TM) catchables

Alosa batholith catchables alpinus bedload catchable-sized Alturas Behnke catch-and-release alutaceus beldingi Catostomus

Ameiurus beller caurinus
Anad Benzalkonium CCOD
anadromous berm CDC
Anderson Beucler censused

annularis BGD centimeter—0.39 in (cm)

anorexia billfish ceraomyxa anoxia Billman cerebralis antivirus Bio-Aide ceratomyxa

Apa BioDiet cfs

Aplanalp BioDiet Starter Chaenobryttus

Apodaca BioDry Challis
Apro BioDry 1000 Chamberlain
aquabonita BioDry Trout channelization
aquaculture bioenergetics channelized
aquaria Biomass Chantilly

arcticus BioMoist Feed CHF
ArcView® Bio-Oregon, Inc. chinook
Ardella Bioproducts™ Chironomidae

chironomids descaled Coregonus Corsi chiselmouth descaling CHR COS Deschutes CHS Costia dewater chub Costiasis dewatered chubs Cottus dewatering cinderblock Couesius diaptomus Cir Coughlin differentially CIS coulteri Dilantin cisco CR dildos Ck creels dimictic cladocera **CRIS** Dingell Dingell-Johnson cladoceran Crista cladocerans CRITEC Dipnet cladophora crossbreed Diquat clarki discobolus cross-reference Clearwater cryopreservation disease-free disinfection Clk cryopreserve clubbed-aill cryopreserved dist clupeaformis **CSCPTOC** Ditton cm (centimeter-0.39 in) CSH DJ DNR Cochnauer Ct Cockrum Ctr Doerr Cocolalla **CTWSRO** dolomieui cubic feet per second (ft<sup>3</sup>/s) coded-wire tag (always double-stack hyphenated. Coded-wireculpeaformis downriver tagged if used as an culturist drainages drainfields adjective.) Curet drawdown COE curtainless COE's Cutrine dryland Coeur CW DryStarter **CWD** Dworshak Coffelt cognatus **CWT** F EF COH cyanellus cyanobacterial toxicosis e.g. (for example) coho COL cyprinids **EAG** Cyprinus echograms Collom coloration anomaly cystis ed. d dav **EEOC** columbianus **EFSR** columnaris DJ Conant DJ's EG d'Alene **EGD** confluentus confusus DB egg-to-fry DCO **EIBS** congenital deformity Eldridge Congleton Deary electrofished consumptiveness deformities electrofishing copei dendogram department-sponsored electrophoresis Copepoda Copepodiasis depurated electrophoretic DEQ electroshocking copepods Der Elsevier Cordone

ha (hectare-2.47 acres) embeddedness Flebbe Hab **EMCC** Floy Encino Fluzu Hach Hagerman flyfishing endemic hard-to-find **Ennis** foam-filled Harriman enteric fontinalis for example (e.g.) harvestability entrainment Formalin harvestable EOSC **FPC EPA** hatcheries freeze-branding hatchery-produced ephemeroptera hatchery-reared epilimnion freeze-dried fry-to-adult hatchery-supported epischura epizootics FSH hatchery-wild ERM Ft (feet—30.48 cm) hath ft<sup>3</sup>/s (cubic feet per second) Hayden erodible FTE headbox erythrocytic headgate erythromycin **FTEs ESA** furbearer headgates headwater escapement furunculosis FY headwaters **ESU** hectare—2.47 acres (ha) et al fyke fykes hectares eutrophic Eventa g (gram—0.03 oz) He-Devil hematopoietic **FWP** Gadwa hematoxylin Gahl exclosure hemorrhagic aairdneri exclosures gal (gallon (3.78 liters)) Henrys Lake (no ') exes henshawi exopthalmia gallon-3.78 liters (gal) HET Gamblin extensus heterozygosity eye-up gas-powered gastrointestinal Hexamita FAL hidey GC falcatus high-density Fausch aemmifer high-gradient feet-30.48 cm (ft) geomorphic high-speed **FERC** Gerrard aibbosus Hightree Fernan hirudiniasis Feucht Gill aneurysms histological **FFF** aillnetting **GIS** histologically ffp FH Gislason histopathological fine-spotted gloveless histopathology hitman gorbuscha fingerling Hlavaty fingerlings gpm fishable gram-0.03 oz (g) **HMIS** HNFH (Hagerman National granitic FishPro Grapette Fish Hatchery) fishway grayling Horner Fite areenei horsepower Fitsum

hour (h)

However, ... OR ...;

however...

gulosus

gyrinus

h (hour)

Fivemile

flavescens Flavobacterium

hudsonius ietboat lignin hull-mounted Jr. Likert **HVAC** Kah-neet-ah Liknes Hvdracarina Kamloops limnetic hydrograph Kaufman limnological hydrologic kennerlyi limnology hydropower Kepps Lindel Hylton keta lineages Hypalon liter-0.26 gal (L) kg (kilogram—2.2 lb) hyperplasia kilogram—2.2 lb (kg) literalistic i.e. (that is) kilometer—0.62 mi (km) littoral Ichthyophthirius kisutch Imnaha **Ictaluras** Klamath Ln **IDFG Klontz** Lochsa idophore km (kilometer-0.62 mi) Lokker **IFIM** kokanee Lolo IHN Konopacky longnose **IHNV** Koocanusa long-term **IHOT** Kooskia Lonn **IMHO** Kootenai Lookingglass immunosorbent Krassel Loreli Imnaha Kruskal-Wallis Lorinda Imogene L (liter—0.26 gal) Losinski impoundment Laclede Lostine in (inch—25.4 mm) Lada Lota inaccessibility Lahonton lowermost inch—25.4 mm (in) Lakefork Lowman Inf Lampetra Lovd inflow lamprev **LSRCP** inflows Landown lucius Ingeborg Lani Ludeman inlet Lapwai Lunday in-river largemouth lunker in-state large-scale lymphoblastosis in-stream Lassen lymphoblasts interagency late-spawning lymphosarcoma intertie lb (pound-453.6 g) lymphosarcomas intra lbs. Lyndell introgressed Leary m (meter-39.37 in) introgression leatherside **MPD** lodophor leiopomus MacCrimmon **IPC** Lemhi Mackay **IPN** length-frequency Macphee Irriaon length-weight macrocheilus ISA Lepomis macrochirus ISI Levesque macrophyte isms lewisi macrophytes Ison Lewynsky macrozooplankton

madtom

madtoms

mainstem

Lic

LifeStage Diet

Lightman

lvywild

Jeppson

JA

makeup midwater mycosis Malad midwinter mycotic contaminants maladapted mile—1.61 km (mi) mycotic infestation/infection Male:Female milligram (mg) mykiss Mallet milliliter—0.338 fl oz (ml) mylocheilus mallmouth millimeter—0.039 in (mm) mysid Mallov Milner mysids malma Min (minute) mysis man-caused Minam myxobacteria Mancuso Minard myxobolus man-hours Minidoka myxosoma man-induced **Minnis** myxosporeaniasis Manns Minshall NF Minthorn manpower n/a Mansell Minto NA Marcuson minute (min) Nadeau marginalized MIS Naderman Maries mitigative Nair marochirus mitochondrial **NAJFM** Marsters mixed-stock Nam MAS **MKNC** namaycush masquinongy ml (milliliter—0.338 fl oz) nauplii masu mm (millimeter—0.039 in) **NBS MOCPOP** matings nebulosus MC necrophiliac monoculture **MCC** monofilament necrosis MCC's Moore nematodiasis McNary mordax neoplasms meds Morinaka nerka melas morphoedaphic Newsome mentorship morpholine Nez Merwin morphometric NFH mesentery Morrill Niagara mortalities meter-39.37 in (m) nigromaculatus methodologies Moscow **NMFS** Metsker MOTTOS NOAA MPD non (check dictionary, most mg per L (mg/L) mg (milligram) MRI are one word) mg/L (mg per L) **MSU** nonacclimated mi (mile-1.61 km) Mt. nonanadromous microcentrifuge Mtn nonendemic micromhos mucoid nongame Micropterus mucosal nonmigrant Microsporeaniasis Mullan nonparametrics microzooplankton multifilis nonresidents mid-depth multiple parasitisms nontagged midlake Multnomah nontreaty mid-reservoir Musgrove nontribal midsection muskie Normandie

northside

Norwood

Mustaine

mxyobolus

midstream

midsummer

PhD overall not significant (NS) Pherson overdependent **Notropis** Picabo overdevelopment **Noturus** picket weir (two words; no overexploitation **NPDES** hyphen) overfishing **NPPC** Pid overgrazing **NPS** pigmy **NPT** overharvest Pimephales overpopulated **NPTH** piscivorous oversee NRA PIT (Passive Integrated overwinter NRP Transponder) overwintering **NRPB** PIT-tagged fish OR fish NS (not significant) Owvhee were PIT tagged Oxvtetracycline Nuxoll oz (ounce—28.35 g) Pitman **NWPPC** Piute Pacino Nybora **PKD** Pagemaker obsessional plankters Pahsimeroi off-hatchery plasm Palmdale off-season **Platts Palouse** off-site platyrhynchus Pamalor Ola plexiglas pantothenic oligotrophic plumbeus Papp olivaris Paragamian pm oncorhynchus **PNFHPC** Paraplane one-half **PNFI Parnassus** Oneida pocket-run parr one-ocean pocket water parts per million (ppm) on-going Poecilia Passive Integrated Onset Stowaway® Policy Transponder (PIT) on-site Pol payers Oregon Mash **Pomoxis** Payette Oregon Pellets ponded payline oregonensis ponding peamouth Oreille pooled PED osculus Portneuf Osmerus pelagic pound-453.6 g (lb) pelletized otolith pouty Pend otoliths Powell Pennask ounce-28.35 g (oz) ppm (parts per million) Pennell outcompeted Pratt Penni outfalls pre (check dictionary; most Penske out-migrant are one word) Penstock out-migrants precocial Peone out-migrated precursors Perca out-migrating predacious out-migration Perce predation Percopsis out-of-state predator-prey Perot outperformed predecline **PERS** outplant predetermine petechial outplanted preliberation

preregulation

petri

Petrosky

outplanting

outplants

salmonids reestablished preseason presmolt salmoninarum req Salvelinus presmolts reas reimbursable Salzmon prespawn prespawning reintroduce sand-gravel prespawning stress sanguinicola relicense sapdissima pretransfer relicta relit Saprolegnia Prett SAR Renibacterium prior to (use before instead) Res Sarandon Pritchard **SARs** Proc residualism residualization Prog sauger progeny:parent residualize Schnabel Schneidervin proliferative residualized Restall SCT promelas reticulata sculpin prophylactically sculpins Prosopium Reutzel **PSD** revegetation Secchi Secesh pseudobranch revetment pseudomonas Rexburg seconds self-addressed Rhinichthys psi **PSMFC** rhotheus self-cleaning Psychrophilum Richardsonius self-sustaining PTAGIS (PIT Tag Ricker Selway Seminole Information System) Rieman Settleable Ptvchocheilus Riordan SFH (Sawtooth Fish **PUD** riprap **Pugmire** Ririe Hatchery) **SFSR** pumphouse Riv punctatus River-of-No-Return shanked **RJH** Shasta pure-strain **RMCI** Shenandoah **PURPA PVC** RMIS (Regional Mark Sherlock **Pylodictis** Information System) Shetter Quonset Rockland shocker shockings Ragan rotenone **Sholes** 

PVC
Pylodictis
Quonset
Ragan
Ragotzkie
Rahel
Ravenscroft
Rawstron
RB
RS
RMIS (Regional Mark
Information System)
Rockland
rotenone
roundtail
Runnoe
runoff
Rupe
S (second)
SV

Shoshone-Bannock **SICHA RCO** SW Silcock recirculated safekeeping siltation recirculation sagittal Sagle Simkins recyclables Saindon single parasitism redband Siple salar redd Salmo site-specific redds

Redfish salmoides Sitka redside salmonid Six-Bit

Shoppe

shorthead

short-term

Shoshone

size-frequency Stizostedion **TGIF** Skalski Stoddard thalweg Skane streambank that is (i.e.) Skanes streambanks thermocline Skelton streamflow Thorqaard Skyview stressor Thurow slack water (two words; see stressors Thymallus dictionary) STS thymic Slott STU Ticonderoga smallmouth STW Tighe smolt subadults Tilden smolted subbasin tinca smoltification subcatchable ton-907.18 kg smolting subdrainages Tonia smolts suboptimal tonne-2,204 lbs (t) subproject smolt-to-adult Torfin smurf subregion Toweill subregional Snedigar Towse snowmelt subsample transect snowpack subtrophy transects **SNRA** subyearling transmontana snuck Sulfamerazine transmontanus SOC supersaturation transponder solids supplementation transport:control sorrys survival-to-emergence trapnetting Soumas sustainable trawl-caught south-central swim-up trawl-estimated spackle sympatric **Trematodiasis** Spateholts sympatry TRI spawner SYSTAT trichodiniasis spawners t tonne (2,204 lbs) trichoptera spawnings T:C tridentata spawntakers TAC Trueblood spawntaking **Tackett** trutta Spic tailrace tshawytscha Spicer tailwater T-shirt Spidell Tamar **TSS** 

Spicer tailway
Spidell Tama
spillway Tana
spilonotus Tanna
splake Targh
Spokane-stock taxap
Sportfishing TDD
spottail Techs
spp. Tegre
spring-fed Temis
squawfish Tana

Sr. Srv Stanley staters steelhead

tubifex Tanna tui Targhee tule taxaphene turbidity turd Techs two-ocean Tegretol two-thirds Temiscamie two-week Tendoy **Tympanites** Tenmile Uberuaga Terpin UC

Teton UCC tetracycline-marked Umatilla Tezak umHOS

un (check dictionary; most are one word unavailability unchannelized unconstructed underseeded undershorts underway unfishable unpalatable unsalvageable unscreened unspawned

unspecified-stock

unsusceptible

upline

upriver
upweller
upwelling
URB
Urizar
us
USA
USACE
USAF
usages
USDA
USFWS
USGS
vaculation

Valcarce

Varden Vecellio Vermeulen
Vernholm
VHS
vibrio
Vinson
Vint
Virgil
vitreum
Vitus
Vooren
Wackenhut
Waha
Wahkeena
Wakkinen
Walch

Walla

Wallowa

Walterville

Walth Waples warmouth warmwater Warrenton Watchable Wavra weighed-in Wendell westslope wetland Wetzel WFYF Whalen WHD White

whitefish Whitehead williamsoni Willmott Winchester Wishard wishy WL **WLD WMA** wompus Wooten WSU **WWP** Wycombe Wyndemere Yakama

Yard—91.4 cm (yd) yd (yard—91.4 cm)

ye

Yani

year-round Yellowstone young-of-the-year

YOY
Zale
Zar
Zippin
Zollinger
zooplankters
zooplankton

,